

# WITH GOOD REASON

AN INTRODUCTION TO  
INFORMAL FALLACIES

FIFTH EDITION



S. MORRIS ENGEL

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INFORMAL FALLACIES**

**Fifth Edition**

**S. Morris Engel**

*York University*

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# Preface

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The text that readers now have before them is in tone and structure essentially the same as its immediate predecessor. As in the previous revision, most of the changes consist of further textual revisions or additions.

The most extensive of these are to be found in Chapter 1 on the nature and scope of logic. This is the chapter that my own students generally find the most difficult to master; it is also the one that throughout the several editions of this text has posed the greatest challenges for me. It is my hope that the changes and revisions made in this edition will make the task of teaching and learning this important material easier for teachers and students alike. Among the changes made are: further clarification of the distinction between arguments and explanations; how missing components of arguments can more easily be discovered by way of the syllogistic method; further elucidation of the deductive/inductive distinction; and a reordering of the last two sections of the chapter, the chapter now ending with Deductive and Inductive Arguments rather than with Truth, Validity, and Soundness.

Similar but less extensive changes will be found in the rest of the text as well. The most major of these are in Chapter 3 on the Fallacies of Ambiguity, again a chapter that presents challenges to both instructor and students. In addition to further clarification of each of the fallacies discussed in this chapter, it seemed structurally more desirable to begin the chapter with the fallacy of equiv-

ocation rather than amphiboly, as formerly, so that the discussion now moves from the ambiguity of individual words or phrases (equivocation), to the ambiguity of sentences (amphiboly, accent), to the ambiguity of context (hypostatization), to, finally, the problems connected with reasoning about wholes and parts, groups and members (division, composition). Unfortunately, this means that the chapter now begins with the most difficult of all the fallacies in this chapter. However, it is also one of the most fascinating and rewarding of them so perhaps the change might prove beneficial.

The new edition retains the Appendix on writing introduced, not without some trepidation, in the fourth edition. This constituted a major change and a major new emphasis. Some, indeed, have found it to be an effective aid in helping students improve their powers of thought and expression. Others are still of two minds about it, overwhelmed, as indeed I have been myself, by the enormity of the problem and wondering whether, perhaps, Jacques Barzun wasn't right after all in believing that writing well is simply a "gift," like the ability to draw, or, as he put it, being facile on the piano, and simply not "within everybody's power" (*On Writing, Editing, and Publishing*, 1986). But who among us who has made the effort, despite the risks involved, has not been rewarded by the outpouring of gratitude of students delighted with the skills we helped them acquire or master? It is my fond hope, therefore, that the section will continue to gain favor and more and more readers will make use of it.

The first edition of *With Good Reason* grew out of my concern that the students taking my introductory course in logic have a basis for evaluating the soundness of arguments which confront them at every turn and which they themselves continually devise. When I gave substantially the same course on television as part of the university's continuing education series, I was surprised by the enthusiastic response of the viewing audience. The members of the community seemed just as interested as my students on the campus in having information that would enable them to decipher the arguments of advertisers, politicians, their children, their business associates, and their friends. I began to suspect that the medieval trivium of logic, grammar, and rhetoric still had much to offer us.

The core of the text is the informal fallacies that are the subject of part two. Part one is preparatory, presenting the fundamentals of argument in nontechnical terms, plus those aspects of language,

such as ambiguity, that can contribute to muddled thinking and muddled communication. Examples in the text are drawn from the mass media, from literature, from philosophic sources, and occasionally from my own invention. I have attempted throughout the text and in the exercises in each chapter to strike a balance between classical illustrations and those that have their basis in contemporary issues and objectives. My hope is that, through exposure to a variety of examples, readers will be better equipped to detect faulty reasoning in oral and written messages they encounter outside the text.

As in the previous four editions, solutions to a number of exercises are given in the text. The instructor's manual, which is bound into the back of the instructor's edition, contains solutions to those examples not solved in the text, as well as additional examples for class use.

This work has grown slowly over a number of years and through many alterations. It owes an enormous debt to hundreds of authors whose books I read during the course of those years and to countless students whose enthusiasm, suggestions, and criticisms contributed to every page. I am grateful to them all.

I would also like to thank here once again for their help and advice not only all the people who helped me with the four previous editions of this text but all those who have now joined them in this new revision. For the improvements in this new edition I am especially indebted to two people in particular: St. Martin's Press developmental editor Julie Nord and Professor Laura Shanner of Georgetown University. I am most grateful to them for the great care with which they read the text and advised me as to how it might further be improved. What good fortune it has been to have had their aid in this task! I thank them profoundly for this.

I am grateful again to all for the warm reception accorded *With Good Reason* and the success it has had. I hope it will continue to be deserving of it.

S. MORRIS ENGEL

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## **Part One**

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# **On Logic and Language**

Part One of our study of informal logic presents some basic principles and considerations that will be necessary for analysis of the common logical errors—fallacies—defined and treated in Part Two. Logic is similar to a science such as medicine in that we require a knowledge of correct functioning before we can fully appreciate what often goes wrong. Accordingly, the first chapter sets forth the fundamentals of logical argument: what a good argument does and the attributes it must possess. Here we shall explore the nature of reasoning.

But reason is only one of two tools used in argument; the other is language. As we reason through a problem, we put our reasoning into words—in speaking, in writing, or silently to ourselves. Because language plays such a vital role in argument, Chapter 2 undertakes to sensitize the reader to the capacity that words have to enrich, distort, specify, obscure, sharpen, or confuse our thinking. We shall see that precise use of language is closely tied to precise use of reason.

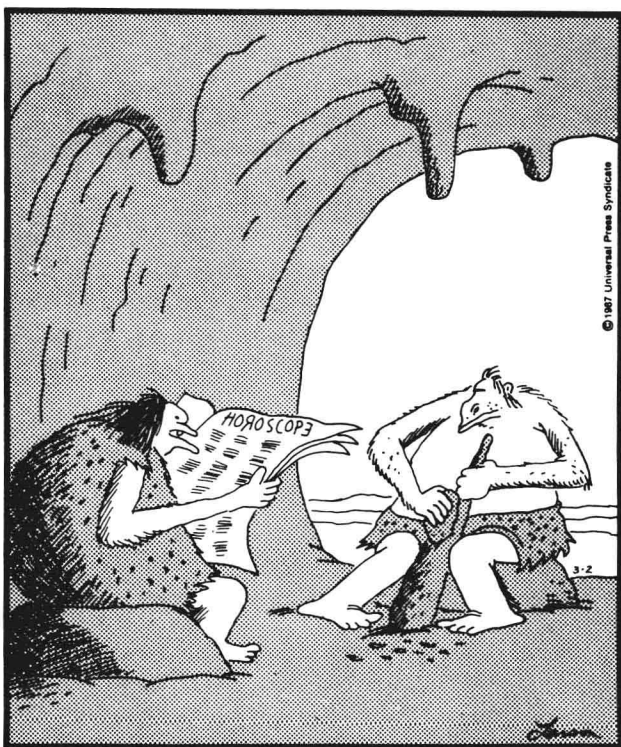
With correct reasoning and appropriate language established as cornerstones, we shall be prepared to go on, in Part Two, to analyze typical mistakes in logic. Formulation of a good argument is not always an easy matter—indeed, much of what we hear, read, say, and think every day is less than correct from a logical point of view. This has always been true, as the ancient Greeks recognized when they began the study of logic as we know it.

To assist in their understanding of logical reasoning and to come to grips with common errors in logic, the Greeks began to catalog various logical errors. Those who followed them continued the study—often in Latin, which provides many of the words and phrases still used by logicians. We shall pause at various points in this text to note briefly the history of important words and phrases that have come down to us from Greek and Latin. We shall see that these unfamiliar phrases name errors that are just as prevalent today as they were in ancient Greece or Rome. We have as much need to study them as did the early philosophers, and this study will form the subject of Part Two.

We have likened the study of logic to medical science, in that just as we need to understand the workings of a healthy,

normal organism before we have a basis for studying the deviations from normality that are disease, so we need to understand correct logic before we can detect logical errors. We might even extend this comparison further, noting that just as the study of disease usually proves fascinating to beginning students of medicine, so most students taking a first course in informal logic find the subject as stimulating as any game.

Although studying logic is often enjoyable, we need to remember that it has a weightier side. Errors in logic can cause serious problems—for individuals, for groups, and for nations. The fruits of human reasoning on profound issues are matters of no little consequence, and several of the arguments examined in this text will assuredly strike the reader with their potential for harm. Some others, illustrating their points in an amusing way, may seem frivolous. Most of the arguments are taken from everyday situations, although some are invented and others have come down to us as classic illustrations in the history of logic. All reward close analysis by sharpening our ability to recognize bad arguments and increasing our appreciation of good ones.



**“‘You have a small capacity for reason, some basic tool-making skills, and the use of a few simple words.’ . . . Yep. That’s you.”**

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# The Nature and Scope of Logic

Anyone reading this book is already familiar with the seemingly constant battle for our minds and allegiances that has been such a distinctive feature of life in the last quarter of the twentieth century. Through the mass media particularly, we are bombarded with appeals to buy this product or that one, to believe this speaker or that one, to take this action or that. Persuasive messages come at us from our friends, from our families, from government, from all manner of sales strategies, from persons heatedly espousing public causes, even from persons with whom we engage in only casual discussion.

We are often aware of something illogical in an attempt to persuade us, but we may find it hard to fight the attempt because we aren't sure why the argument's logic is faulty or what in particular is wrong with it. Unfortunately, in argument the one who talks longest, loudest, and last often comes out looking like "the winner," even though he or she may not have argued well at all. This is because if no one has answered the argument—if no one has actually shown that the argument is weak or unlikely, we are left thinking: the arguer could be right and, moreover, no one can point

to anything wrong, so . . . This is why we bother to dispute a point at all—if it goes undisputed we and others may be subtly or even heavily influenced by it, may in fact be weakened in our original disagreement with it, and may find it hard to refuse other arguments or even calls to action that derive from it. All of which can lead us to feeling we have no choice but to say and do things that we do not, at heart, choose or believe in.

How are we to know whether to buy, believe, or do what is urged on us? What reasons exist, and how compelling are they? To what extent, if any, do they obligate us? And how can we better ensure that our own private analysis of problems that concern us is as reasonable as we can make it? One purpose of a study of logic is to gain tools with which to distinguish good arguments from bad ones. Accordingly, logic may be regarded as among the most powerful studies one can undertake, particularly in an age like ours which is so full of impressive claims and counterclaims.

## 1. LOGIC AS SCIENCE AND ART

Is logic a science (like astronomy or genetics), or is it a practical art (like gymnastics or cooking)? Is its object to describe the nature and structure of correct thinking, in the manner of an exact science? Or does it teach us how to reason correctly, as we might instruct someone in playing the trombone? Is its primary object, in short, to help us understand what clear reasoning is or to teach us to reason clearly?

A case can be made for viewing logic in either of these ways. Some have argued that logic is nothing but a science, in that it investigates, systematizes, and demonstrates rules of correct reasoning. They have even suggested that the teaching of logical reasoning may be pointless, just as we need not wait for the physiologist to teach us how to eat. Either we already know how to reason or we do not. If we already possess this faculty, we need no instruction. If we do not possess it, instruction will not help.

Others have argued that logic's main value is that it improves our reasoning powers and strengthens our ability to evaluate the correctness of arguments and to detect their weaknesses. Having such utility, they say, logic must be considered an art as well as a science for it not only informs the mind but trains it as well. Some

have termed logic a *liberal* art, in that its study provides a better understanding of our nature and helps free us from ignorant thoughts and actions. ("Liberal" derives from the Latin *liber*, meaning "free.") In this book we shall follow the practice of those who regard the study of the art, or practice, of logic as of equal importance to its theoretical study.

Some, indeed, would claim that its practical study, with its analysis of prejudice, bias, and bigotry, is even *more* important than its theoretical study, important as that is. History is a catalog of incidents in which a poor argument convinced hordes of people to act badly, or even brutally. The many atrocities of World War II are all the evidence we need that as human beings we are easily persuaded to hate and murder. Of course there were many elements that contributed to the situation in which the holocaust could take place—it wasn't simply attributable to faulty reasoning. But poor reasoning certainly facilitated a lot of the individual acts that added up to it. And equally unreasoned brutality and hatred continue to characterize our civilization. The study of good logic, then, is one avenue through which we can strive to reduce such behavior in ourselves, and protect ourselves from it in others.

The eighteenth-century satirist Jonathan Swift published an essay entitled "A Modest Proposal" in which he slyly suggested that cannibalism would make a very reasonable, practical solution to the problem of overpopulation in the poor. In what appears to be a beautifully reasoned argument "a rigorous logic deduces ghastly arguments from a shocking premise so quietly assumed that the reader assents before he is aware of what his assent implies" (*Norton Anthology of English Literature*, vol. one, 3rd ed., p. 2094). The point Swift really wants to make is how easily we can be led to horrific ideas and opinions—to say nothing of actions—by an arguer who knows how to imitate sound reasoning. This is why we need to know sound reasoning ourselves: so we can distinguish skillful fakes from the real thing.

## 2. LOGIC AS THE STUDY OF ARGUMENT

Logic is the study of *argument*. As used in this sense, the word means not a quarrel (as when we "get into an argument") but a piece of reasoning in which one or more statements are offered as



support for some other statement. The statement being supported is the *conclusion* of the argument. The reasons given in support of the conclusion are called *premises*. We may say, "This is so (conclusion) because that is so (premise)." Or, "This is so and this is so (premises); therefore that is so (conclusion)." Premises are generally preceded by such words as *because*, *for*, *since*, *on the ground that*, *in as much as*, and the like. Conclusions, on the other hand, are generally preceded by such words as *therefore*, *hence*, *consequently*, *it follows that*, *thus*, *so*, *we may infer that*, and *we may conclude that*.

The first step toward understanding arguments, therefore, is learning to identify premises and conclusions. To do so, look for the indicator words, as they are called, just listed. In arguments where such indicator words are absent, try to find the conclusion by determining what is the main thrust of the argument: the point the argument is trying to establish. That will be its conclusion; the rest its supporting grounds or premises.

Distinguishing the conclusion from the premise or premises in the following two arguments is easy, for in the first case one of its statements is preceded by the word *for* (which tells us that what follows is a premise and what remains must be its conclusion) and in the second, one of its statements is preceded by the word *hence* (which tells us that what follows is a conclusion and what remains must be its premise):

- a) Jones will not do well in this course, for he is having a hard time concentrating on schoolwork this semester and has hardly attended any classes.
- b) She has antagonized nearly everyone in the office; hence it is unlikely that she will be granted the promotion.

In the following two examples, however, no such helpful indicator words are present:

- c) There are no foxes in this area. We haven't seen one all day.
- d) All conservatives oppose public housing; Senator Smith opposes it; he must be a conservative.

To distinguish the premise from the conclusion in cases of this sort, ask yourself such questions as: what is being *argued for* and what is the person trying to *persuade us of*? In case *c* what is being